



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,280	11/08/2001	Randall M. Carpenter	255/123	1253

167 7590 07/15/2004

FULBRIGHT AND JAWORSKI L L P
PATENT DOCKETING 29TH FLOOR
865 SOUTH FIGUEROA STREET
LOS ANGELES, CA 900172576

EXAMINER

LAZOR, MICHELLE A

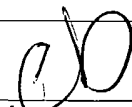
ART UNIT

PAPER NUMBER

1734

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/053,280	Applicant(s) CARPENTER, RANDALL M.	
	Examiner Michelle A Lazor	Art Unit 1734	
	-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --		

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 25 June 2004.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-52 is/are pending in the application.

4a) Of the above claim(s) 38-52 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-6, 9, 10, 13-20, 24-27 and 30-37 is/are rejected.

7) ☒ Claim(s) 8, 22, 23 and 29 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/27/02</u> .	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____.
---	---

Art Unit: 1734

DETAILED ACTION

Election/Restrictions

1. Claims 38 – 52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 25 June 2004.

2. Regarding the restriction of Claims 26 – 37, Examiner agrees with the Applicant.

Therefore Claims 1 – 37 have been examined below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3, 10, 16 – 18, 27, 30, and 35 – 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by “radius edge”.

There is no specific definition in the specification. For the purpose of examination, the Examiner has assumed the meaning to be a curved edge.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 13, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski (U.S. Patent No. 5395577) in view of Jarboe et al. (U.S. Patent No. 4960622).

Art Unit: 1734

Regarding Claims 1 and 2, Gorski discloses a method of manufacturing an artificial rock, comprising the steps of: making an outer negative mold of a portion of a surface of natural rock (Figure 1; column 3, line 62 – column 4, line 4); forming a test artificial rock with a cementitious material using the outer negative mold, the test artificial rock comprising an outer surface that replicates the portion of the surface of the natural rock and an inner surface defining a cavity (column 4, lines 5 – 18); making an inner mold of the inner surface of the test artificial rock (column 4, lines 19 – 32); and forming an artificial rock from a liquid cementitious material by molding the liquid cementitious material between the outer mold and the inner mold (column 4, line 62 – 68); but does not specifically disclose adding reinforcing members to the inner surface of the test artificial rock. However, Jarboe et al. disclose using reinforcing layers or what is considered to be the equivalent of ribs, on the inner surface of a molded rock (column 2, lines 53 – 59). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use reinforcing members on the inner surface of the rock to provide an economy in cost of production and a lighter weight rock (column 2, lines 58 – 60).

Regarding Claim 4, Gorski discloses a malleable mold (31) and a semi-rigid outer shell (25) (column 3, lines 35 – 51), wherein the malleable mold has an inner surface that contains negative impressions corresponding to the surface features of the natural rock being replicated and an outer surface which mates with a corresponding inner surface of the semi-rigid outer shell (Figure 3; column 3, line 63 – column 4, line 4).

Regarding Claim 13, Gorski discloses painting or staining the surface of the formed artificial rock (column 5, lines 32 – 39).

Regarding Claim 19, Gorski discloses coating the portion of the surface of the natural rock with a release agent prior to making the outer mold (column 3, lines 31 – 34).

Regarding Claim 21, by defining a mold cavity with inner and outer molds, one of ordinary skill in the art at the time of the invention would consider the volume of the material used to form the product to be predetermined.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski and Jarboe et al. as applied in Claim 1 above, in view of Roberts (U.S. Patent No. 5911927).

Gorski and Jarboe et al. disclose all the limitations of Claim 1, but do not specifically disclose a malleable mold that comprises latex rubber and a semi-rigid outer shell that comprises fiberglass, wherein the malleable mold has an inner surface that contains negative impressions corresponding to the surface features of the natural rock being replicated and an outer surface which mates with a corresponding inner surface of the semi-rigid outer shell. However, Roberts discloses using latex rubber as the flexible or malleable mold and fiberglass as the semi-rigid outer shell (column 3, lines 33 – 54) as described above. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use both latex rubber as the flexible or malleable mold and fiberglass as the semi-rigid outer shell since it is well known and conventional to use these materials as is shown by the reference as an alternative to an elastomer and a rigid polyurethane foam, respectively, as disclosed by Gorski.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski and Jarboe et al. as applied in Claim 1 above, in view of Yamaguchi et al. (U.S. Patent No. 4024098).

Gorski and Jarboe et al. disclose all the limitations of Claim 1, but do not specifically disclose making a plurality of test artificial rocks and compression testing at least one of the

Art Unit: 1734

plurality of test artificial rocks for structural strength. However, Yamaguchi et al. disclose preparing multiple samples of mineral structures such as artificial rock or stone (column 1, lines 9 – 18), wherein the samples are compression tested (column 7, lines 43 – 55 and column 9, lines 15 – 25). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to compression test the artificial rocks disclosed by Gorski and Jarboe et al. to test if reinforcing compositions are necessary to add to the samples (Abstract).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski and Jarboe et al. as applied in Claim 1 above, in view of Day, Jr. (U.S. Patent No. 4226061).

Gorski and Jarboe et al. disclose all the limitations of Claim 1, but do not disclose the reinforcing members to comprise cementitious material; rather Jarboe et al. disclose using urethane as a reinforcing member (column 2, lines 53 – 59). However, Day, Jr. discloses using either cementitious material or urethane as reinforcing materials (column 11, lines 23 – 28). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use either cementitious material or urethane as reinforcing materials since they are known to be alternative equivalents as disclosed by Day, Jr.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski and Jarboe et al. as applied in Claim 1 above, in view of Pritchard et al. (U.S. Patent No. 5837172).

Gorski and Jarboe et al. disclose all the limitations of Claim 1, but do not disclose connecting the inner mold to the outer mold by a hinge. However, Pritchard et al. disclose mold sections joined by a hinge (29) (Figure 1; column 3, lines 19 – 35). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a hinge to allow the mold to be opened to gain access to the mold cavity (column 3, lines 30 – 32).

Art Unit: 1734

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski and Jarboe et al. as applied in Claim 1 above, in view of Spragg (U.S. Patent No. 5902528).

Gorski and Jarboe et al. disclose all the limitations of Claim 1, but do not disclose vibrating the first mold and the second mold while molding. However, Spragg discloses vibrating molds that contain an inner and outer mold (Figure 1; column 6, lines 27 – 34). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use vibrating means while molding a first and second mold to dispel entrapped air (column 6, lines 30 – 31).

12. Claims 14, 15, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski and Jarboe et al. as applied in Claim 1 above, in view of Stott (U.S. Patent No. 6355193).

Regarding Claims 14 and 15, Gorski and Jarboe et al. disclose all the limitations of Claim 1 including painting or staining the surface of the formed artificial rock (Gorski: column 5, lines 32 – 39), but do not disclose coloring the liquid cementitious material. However, Stott discloses adding color or pigment directly to the concrete mixture (column 4, lines 43 – 60). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to add coloring to the cementitious material to facilitate coloring of the artificial stone.

Regarding Claims 24 and 25, Gorski discloses using an inner mold that comprises polyurethane (column 4, lines 20 – 32), but does not disclose the shell to be comprised of fiberglass. However, Stott discloses using either polyurethane or fiberglass as equivalent alternatives (column 6, lines 3 – 10). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use fiberglass as a less expensive alternative to polyurethane (column 6, lines 9 – 10).

Art Unit: 1734

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski and Jarboe et al. as applied in Claim 1 above, in view of Warfel (U.S. Patent No. 6248411).

Gorski and Jarboe et al. disclose all the limitations of Claim 1, but do not specifically disclose coating the opposing surfaces of the outer and the inner molds with a release agent prior to forming the artificial rock from the liquid cementitious material. However, Warfel discloses using mold release agents on surfaces of molds (column 5, lines 31 – 60). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use mold release agents on the outer and the inner molds prior to forming the artificial rock from the liquid cementitious material to facilitate the release of the artificial rock from the mold.

14. Claims 26 and 31 – 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski in view of Jarboe et al., Day, Jr., Roberts, and Stott.

Regarding Claims 26 and 31, Gorski discloses a method of manufacturing an artificial rock, comprising the steps of: coating the portion of the surface of the natural rock with a release agent (column 3, lines 31 – 34); making an outer negative mold of a portion of a surface of natural rock (Figure 1; column 3, line 62 – column 4, line 4), the outer negative mold comprising a malleable mold (31) and a semi-rigid outer shell (25) (column 3, lines 35 – 51), wherein the malleable mold has an inner surface that contains negative impressions corresponding to the surface features of the natural rock being replicated and an outer surface which mates with a corresponding inner surface of the semi-rigid outer shell (Figure 3; column 3, line 63 – column 4, line 4); forming a test artificial rock with a cementitious material using the outer negative mold, the test artificial rock comprising an outer surface that replicates the portion of the surface of the natural rock and an inner surface defining a cavity (column 4, lines 5 – 18); making an inner

Art Unit: 1734

mold of the inner surface of the test artificial rock (column 4, lines 19 – 32); and forming an artificial rock from a liquid cementitious material by molding the liquid cementitious material between the outer mold and the inner mold (column 4, line 62 – 68); but does not specifically disclose adding cementitious reinforcing ribs to the inner surface of the test artificial rock, using latex rubber as the flexible or malleable mold and fiberglass as the semi-rigid outer shell, and making the inner mold using fiberglass. However, Jarboe et al. disclose using reinforcing layers or what is considered to be the equivalent of ribs, on the inner surface of a molded rock (column 2, lines 53 – 59), while Day, Jr. discloses using either cementitious material or urethane as reinforcing materials (column 11, lines 23 – 28). Additionally, Roberts discloses using latex rubber as the flexible or malleable mold and fiberglass as the semi-rigid outer shell (column 3, lines 33 – 54), while Stott discloses making the inner mold using fiberglass (column 6, lines 3 – 10). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use reinforcing members on the inner surface of the rock to provide an economy in cost of production and a lighter weight rock (column 2, lines 58 – 60); it would have been obvious to one having ordinary skill in the art to use either cementitious material or urethane, as disclosed by Jarboe et al., as reinforcing materials since they are known to be alternative equivalents as disclosed by Day, Jr.; it would have been obvious to one having ordinary skill in the art to use both latex rubber as the flexible or malleable mold and fiberglass as the semi-rigid outer shell since it is well known and conventional to use these materials as is shown by the reference as an alternative to an elastomer and a rigid polyurethane foam, respectively, as disclosed by Gorski.; and finally, it would have been obvious to one having ordinary skill in the

Art Unit: 1734

art to make the inner mold using fiberglass as a less expensive alternative to polyurethane (column 6, lines 9 – 10).

Regarding Claims 32 – 34, Gorski discloses painting or staining the surface of the formed artificial rock (Gorski: column 5, lines 32 – 39), but does not disclose coloring the liquid cementitious material. However, Stott discloses adding color or pigment directly to the concrete mixture (column 4, lines 43 – 60). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to add coloring to the cementitious material to facilitate coloring of the artificial stone.

15. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorski, Jarboe et al., Day, Jr., Roberts, and Stott as applied in Claim 26 above, in view of Yamaguchi et al.

Gorski, Jarboe et al., Day, Jr., Roberts, and Stott disclose all the limitations of Claim 26, but do not specifically disclose making a plurality of test artificial rocks and compression testing at least one of the plurality of test artificial rocks for structural strength. However, Yamaguchi et al. disclose preparing multiple samples of mineral structures such as artificial rock or stone (column 1, lines 9 – 18), wherein the samples are compression tested (column 7, lines 43 – 55 and column 9, lines 15 – 25). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to compression test the artificial rocks disclosed by Gorski and Jarboe et al. to test if reinforcing compositions are necessary to add to the samples (Abstract).

Allowable Subject Matter

16. Claims 3, 10, 16 – 18, 27, 30, and 35 – 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There was no reference in the prior art

Art Unit: 1734

search that disclosed, taught, or suggested grinding square edges on the artificial rock to a radius edge.

17. Claims 8 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There was no reference in the prior art search that disclosed, taught, or suggested the reinforcing members are to be added to one of the test artificial rocks at identified structurally weak areas and the inner mold is made from this test artificial rock.

18. Claims 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There was no reference in the prior art search that disclosed, taught, or suggested the volume of liquid cementitious material to be determined by adding an amount of water to the outer mold that exceeds the volume of space between the outer and inner molds when in their respective positions for molding the artificial rock, placing the outer and inner molds in their respective positions for molding the artificial rock to expel excess water from the outer mold, and measuring the volume of water remaining the in the outer mold.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Klüh et al. (U.S. Patent No. 5443774) disclose a method of making an artificial rock (Abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle A Lazor whose telephone number is 571-272-1232. The examiner can normally be reached on Mon - Wed 6:30 - 4:00.

Art Unit: 1734

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MAL
7/8/04



CHRISTOPHER A. FIORILLA
PRIMARY EXAMINER
SPE, ART UNIT 1734